

ENTOMOLOGY.—*Five new species of chrysomelid beetles.* DORIS H. BLAKE, Arlington, Va.

The following new species of chrysomelid beetles, including a new genus of flea beetles from the West Indies, have come to the writer's attention.

*Xanthonia flavoannulata*, n. sp.

Fig. 1

Between 5 and 6.5 mm in length, oblong oval, faintly shining beneath the closely appressed pubescence; head and pronotum densely punctate, the elytra with coarser striate punctures; prothorax with two humps, elytra with a slight depression below basal callosities, all femora toothed; head mostly dark piceous, the lower front deep reddish, antennae reddish brown with apex of each joint often paler; prothorax varying from deep reddish brown with irregular dark areas to piceous; elytra variable in markings from yellowish or reddish brown with irregular piceous mottling to almost entirely piceous; legs and body beneath dark, the legs with pale rings.

Head densely and coarsely punctate throughout and with short closely appressed pubescence, sometimes the pubescence forming pale spots on vertex, front flat and broad with only a faint median line and no trace of frontal tubercles and a wide flat interantennal area having on each side a wide and moderately deeply excavated antennal socket. Head deep piceous above, paler reddish in lower front, the mouthparts yellowish with large shiny piceous jaws. Antennae not reaching the middle of the elytra, slender becoming a little wider in distal joints, reddish or yellowish brown with the apex of each joint a little paler, fourth and seventh joints longer than the rest. Prothorax not twice as broad as long, coarsely punctate throughout, the punctures extending around to coxal cavities, covered with short, closely appressed pale pubescence; disc with depression anteriorly, behind this a knobby callosity on each side of middle, these callosities and median line without pubescence and darker in some specimens, often the entire disc piceous. Scutellum covered with pale pubescence. Elytra with basal callosity and depression below this, towards apex the intervals between the striate punctures becoming costate; striate punctures moderately coarse, not very dense, partially covered by the pale closely appressed pubescence; color of pubescence as well as surface varying from yellowish or reddish

brown to deep piceous, pattern extremely variable, from pale yellow brown with irregular dark mottlings to almost entirely piceous with paler humeri and a few small patches of white pubescence; the paler spots more in evidence towards apex. Body beneath shining piceous with closely appressed pale pubescence. Femora and tibiae dark with pale rings beyond middle and at apex; tarsal joints usually pale; all femora toothed, the anterior ones with larger tooth. Length 5.2 to 6.5 mm; width 2.5 to 3.2 mm.

*Type* male and 51 paratypes, U.S.N.M. no. 62281, 1 paratype in M.C.Z., Cambridge, Mass.

*Type locality*.—Taken at Laredo, Tex., in shipments of orchids from "Cd. del Maíz," San Luis Potosí, Mexico, October 14, 1944, November 29, 1946, January 14, 1947, and March 1, 1947.

*Other localities*.—Chilpancingo, Guerrero (taken on orchids at Laredo, Tex., February 4, 1947); San Luis Potosí (taken on orchids at Laredo, Tex., April 20, 1947).

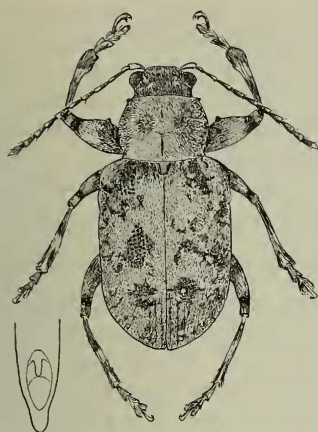
*Remarks*.—Specimens of this species have been collected repeatedly at Laredo, Tex., in shipments of orchids from Mexico. They differ from *X. guatemalensis* Jacoby in that the prothorax has distinct tubercles, one on each side of the middle; from *X. jacobyi* Clav. in that all the femora are toothed, and from *X. nigrofasciata* Jacoby in that the elytra are not tuberculate. That species also is described as having a longitudinal black band on the elytra. *X. marmorata* Jacoby and *X. tuberosa* Jacoby are both smaller, and the latter has unarmed femora. In his original description of *X. marmorata*, Jacoby wrote that it could be known because of its minute size (one line) and because each elytron had about 10 black spots arranged in transverse rows. Later in the Supplement<sup>1</sup> under *X. marmorata* he wrote that there were a few specimens from Chilpancingo in which the elytral spots form irregular patches, and there was a wide variation in size, sculpture and markings. It is possible that he may have had specimens of this species that he confused with *X. marmorata*.

*Blepharida pallida*, n. sp.

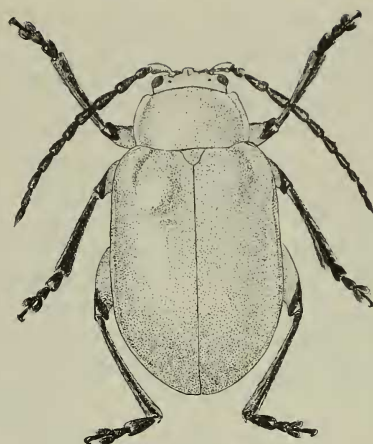
Fig. 5

About 7 mm in length, oblong oval, faintly shining, pale yellow with the tip of the terminal

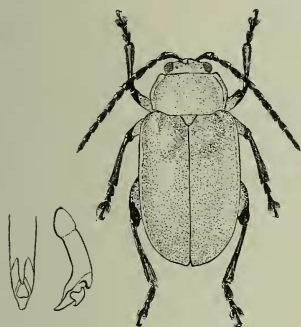
<sup>1</sup> Jacoby, Biol. Centr. Amer., Coleoptera, 6, pt. 1. Suppl.: 231. 1891.



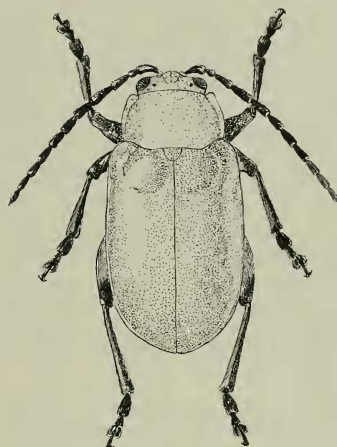
1. *Xanthonia flavoannulata*



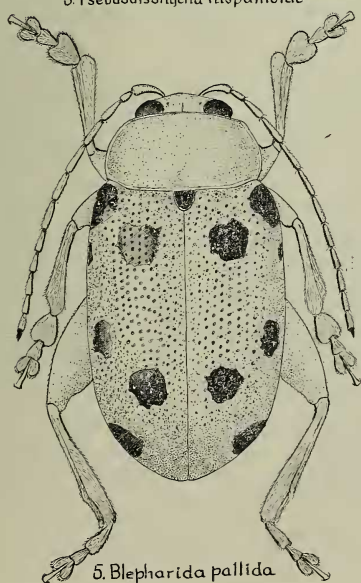
2. *Pseudodisonycha portoricensis*



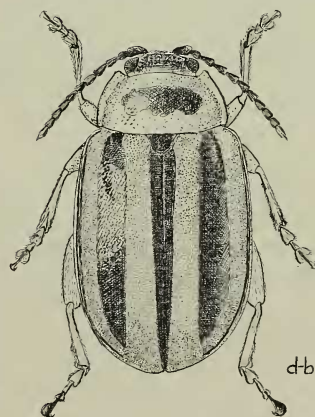
3. *Pseudodisonycha hispaniolae*



4. *Pseudodisonycha darlingi*



5. *Blepharida pallida*



6. *Oedionychus rhabdotus*

FIGS. 1-6.—New chrysomelid beetles.

antennal joint, the mandibles, scutellum, and six spots on each elytron dark.

Head with interocular space more than half width of head, pale yellow except tip of mandibles which are deep reddish brown, occiput alutaceous and with scattered punctures, frontal tubercles not distinct, a slight carina between antennal sockets and a deep transverse groove below. Antennae long and slender, pale with the tip of terminal joint dark, third joint shorter than fourth or fifth and subequal to sixth. Prothorax approximately twice as broad as long with curved sides and narrow margin, a sunken line continuing from lateral margin along base and anterior margin; entirely pale yellow, alutaceous and distinctly but not densely punctate, surface somewhat uneven with lateral depressions and one over the scutellum at base. Scutellum dark. Elytra faintly shining, faintly alutaceous, pale yellow with six dark spots on each elytron, one on humerus, one below humerus on side and one in middle below scutellum, one slightly below middle on side, one in middle near apex, and one on side below this near apex; densely and coarsely punctate, the punctation being somewhat striate near base but not definitely striate beyond middle and on sides. Body beneath and legs entirely pale yellow. Hind femora enlarged, hind tibiae with short spur, claws with a long basal tooth, almost bifid. Length 6.8 mm; width 4 mm.

*Type* male, from Venedio, Sinaloa, Mexico, collected July 31, 1918, in California Academy of Sciences, from the Van Dyke collection.

*Remarks.*—This is a most distinctive species of *Blapharida*. Two others from Mexico and Central America are pale yellow with black spots. *B. 14-punctata* Jacoby has seven spots on each elytron with a quite different arrangement, and *B. singularis* Jacoby has irregular black spotting.

#### *Pseudodisonycha*, n. gen.

From 4 to 7 mm in length, oblong oval, shining, nearly impunctate, yellow brown, the antennae stout and black, the tips of femora, tibiae, and tarsi dark; prothorax without transverse basal depression, elytra with strong basal callosity and a depression below.

Head smooth, shining, impunctate except for a single large fovea on either side near eye, eyes widely separated, not emarginate. Antennae extending about to the middle of the elytra,

unusually robust, with the fourth joint longer than the third, fourth and fifth joints wider and longer than preceding or following, the sixth and following joints gradually diminishing in length and width in both sexes. Prothorax not quite twice as broad as long, with slightly curved sides, smoothly rounded and without callosities, the explanate margin not very wide; the anterior and basal angles as in *Disonycha* with a slight pinched-in depression at basal angle, no sign of transverse basal depression. Elytra with prominent humeri, a pronounced intrahumeral depression and a basal callosity, below this a transverse depression. Body beneath with open anterior coxal cavities, the hind femora enlarged, hind tibiae with short spur, first tarsal joint of hind legs as long as the next two together, the first tarsal joints of the anterior pairs of legs in the male much swollen; claws appendiculate.

*Genotype:* *Pseudodisonycha darlingtoni* (Blake).

*Remarks.*—This is exceedingly close to *Disonycha*, and I described the first species as *Disonycha darlingtoni*<sup>2</sup> (from Cuba). Since then two others have come to my attention. They form a group of species very similar to each other in shape and coloration that appears to be endemic in the West Indies. The chief difference between them and *Disonycha* lies in the antennal characters, the five basal antennal joints being thicker than the terminal ones, and the elytral callosities and accompanying transverse depression before the middle.

#### *Pseudodisonycha portoricensis*, n. sp.

Fig. 2

From 6 to 7 mm long, oblong oval, shiny, nearly impunctate, pale yellow brown with black antennae and black apices of femora, black tibiae and tarsi.

Head with interocular space more than half width of head, polished and impunctate except for a single fovea on each side near the eye, frontal tubercles faintly marked, interantennal area rounded and slightly produced and extending down short lower front, labrum small. Antennae extending nearly to the middle of the elytra, robust, the first joint deep reddish brown, remainder black, the third joint shorter than fourth, fourth longest, joints 5, 6, and 7 gradually diminishing in length, and terminal joints

<sup>2</sup> Blake, Proc. Ent. Soc. Washington, 40: 50. 1938.



thinner and shorter. Prothorax not quite twice so broad as long with the sides only slightly rounded, anterior and basal angles as in *Dissonycha*, little trace of transverse basal depression; disc moderately convex, smooth, almost impunctate. Elytra with deep intrahumeral sulcus and a distinct basal callosity with a depression below it; surface shiny, almost impunctate, pale yellow brown. Undersurface pale, the apex of the femora, tibiae and tarsi black; anterior coxal cavities open. Hind tibiae with a short spur, claws appendiculate. Length 6 to 7 mm; width 3.5 mm.

*Type*, male, M.C.Z. no. 29267, collected May 30–June 2, 1938, in Maricao Forest, 2,000–3,000 feet, Puerto Rico, by P. J. Darlington.

*Other localities*.—One other specimen, a male, from the Stuart Danforth collection, collected at Mayagüez, Puerto Rico, in December 1932, by J. Vick.

*Remarks*.—This species is larger than the Cuban one and the tip of the femora alone is dark; in the Cuban species the femora are more or less dark. One specimen, a female from Constanza, Dominican Republic, collected at 3,000–4,000 feet altitude, in August 1938 by P. J. Darlington, is very similar to this species but is probably distinct from it. The head is unlike it in having a less pronounced and smaller carina. I hesitate to describe it from only one female specimen.

***Pseudodissonycha hispaniolae*, n. sp.**

Fig. 3

Between 4 and 5 mm in length, oblong oval, shiny, nearly impunctate, pale yellow-brown, with heavy black antennae and apices of femora and black tibiae and tarsi.

Head except for a single fovea on each side near eye impunctate, smooth and shining, frontal tubercles lightly marked, interantennal area rounded and a little produced, lower front short. Antennae extending almost to the middle of the elytra, entirely dark, robust, fourth joint longer than third and succeeding ones gradually diminishing both in length and width. Prothorax almost twice as wide as long with slightly rounded sides, anterior and basal angles as in *Dissonycha*, a pinched-in sort of depression at basal angle, no trace of transverse basal depression, surface moderately convex and shiny, impunctate. Elytra with strong intrahumeral

sulcus and a depression below basal callosity, shiny, impunctate. Body beneath pale with the apices of the femora and whole of tibiae and tarsi dark. Length 3.9 to 4.6 mm; width 2.2 to 2.5 mm.

*Type* male, M.C.Z. no. 29268, and 1 paratype (female) collected on Mount Diego de Ocampo, Dominican Republic, 3,000–4,000 feet altitude, July 1938, by P. J. Darlington. One paratype in U.S.N.M., no. 62282.

*Remarks*.—This is smaller than either the Cuban or Puerto Rican species but otherwise very similar except for differences in the shape of the aedeagus.

***Oedionychus rhabdodus*, n. sp.**

Fig. 6

Between 6.5 and 8 mm in length, oblong oval, shining, strongly punctate, the head deep reddish brown on occiput, paler on lower front, body beneath and legs reddish brown; prothorax and elytra yellow with a median dark fascia on prothorax and a sutural, median and submarginal dark vitta on elytra, a groove of deep, coarse punctures in the intrahumeral sulcus.

Head deep reddish brown on occiput and coarsely and densely punctate even on tubercles, a median line running down between the tubercles, lower front paler. Antennae deep reddish brown to piceous, rather short, not coming much below humeri, the third joint almost as long as fourth. Prothorax more than twice as wide as long, smoothly convex with rounded sides and explanate margin, a small tooth at apical angle, surface alutaceous but somewhat shiny and deeply and densely punctate; pale yellow brown with a broad dark median transverse fascia of variable length and shape but not extending to the explanate margin. Scutellum dark, finely alutaceous. Elytra shining, deeply and densely and moderately coarsely punctate, a groove of deep coarse punctures extending down the intrahumeral sulcus; yellow brown with a moderately wide sutural, median and narrower submarginal dark vitta, none uniting at apex, the submarginal vitta being scarcely visible from above. Body beneath and legs reddish brown. Length 6.5 to 7.8 mm; width 3.8 to 4.4 mm.

*Type* male, U.S.N.M. no. 62,283, collected at Sunny Hill, Fla., taken from the stomach of a quail (*Colinus virginianus* subsp.).

*Other localities.*—*Florida*: Haw Creek, Hubbard and Schwarz; Fort Myers, Van Duzee, May 3–5, 1908, from H. F. Wickham collection; one specimen from Florida from the Charles Schaeffer collection. *Georgia*: Tifton, P. A. Glick; Thomasville, April 1926, on pecan leaf, T. L. Bissell. *South Carolina*: Allendale, August 15, 1935, J. N. Todd.

*Remarks.*—In my revision of the beetles of the genus *Oedionychis* published in 1927<sup>3</sup> I referred to a pair of these beetles as possibly new. At that

<sup>3</sup> Proc. U. S. Nat. Mus. 70 (art. 23): 24, 1927.

**HERPETOLOGY.**—*On a collection of amphibians from Mount Kina Balu, North Borneo.* ROBERT F. INGER, Chicago Natural History Museum. (Communicated by Doris M. Cochran.)

In 1951 a field party led by Lt. Col. Robert Traub, United States Army, spent approximately one month on Mount Kina Balu, North Borneo. Although not the primary desiderata, cold-blooded vertebrates were collected. Amphibians were obtained at the following localities on the mountain: Bundu Tuhan, 4,500 feet; Lumu Lumu, 5,500 feet; and Kamaranga, 7,800 feet. All the material is on deposit in the United States National Museum.

In his paper summarizing the herpetology of Mount Kina Balu, Smith (Bull. Raffles Mus. 5: 8–32, 2 pls., 3 text figs. 1931) lists 39 species of anurans. The Traub party collected 15 species, including one new species and two not recorded previously from the mountain. In the collection list that follows, the starred forms are new to the fauna:

*Megophrys monticola nasuta* (Schlegel): 4,500 feet.

*Megophrys baluensis* (Boulenger): 4,500 feet, 5,500 feet.

*Megophrys hasselti* (Tschudi): 4,500 feet, 5,500 feet.

*Pelophryne misera* (Mocquard): 7,800 feet.

*Kalophrynus pleurostigma* Tschudi: 4,500 feet.

*Ooeidozuga baluensis* (Boulenger): 4,500 feet.

*Rana kuhli* Duméril and Bibron: 4,500 feet.

*Rana microdisca palawanensis* Boulenger: 4,500 feet.

*Rana luctuosa* (Peters): 4,500 feet.

*Staurois whiteheadi* (Boulenger): 4,500 feet.

\**Rhacophorus baluensis*, n. sp.: 4,500 feet.

*Rhacophorus leucomystax* (Gravenhorst): 4,500 feet.

*Rhacophorus spiculatus* (Smith): 4,500 feet.

time I did not dissect any of the beetles. Dissection proves that this is quite distinct from *Oedionychus petauristus* Fabricius. The markings are somewhat similar, but the median vitta in the former species is located nearer the margin and the lateral vitta becomes a submarginal vitta. The aedeagus is quite different, being bilobed at the apex instead of being acuminate. Moreover the deep groove of punctures on the elytra is unlike anything in *O. petauristus*. Five more specimens have accumulated in the last quarter century since my first publication, all from the southeastern United States.

\**Rhacophorus colletti* Boulenger: 4,500 feet.

\**Philautus bimaculatus* (Peters): 5,500 feet.

#### ***Rhacophorus baluensis*, n. sp.**

*Holotype.*—U.S.N.M. no. 130215 from Bundu Tuhan, Mount Kina Balu, North Borneo. An adult female, collected on July 5, 1951, at 4,500 feet by Dr. D. H. Johnson.

*Description of holotype.*—Habitus moderately robust; head as long as broad; snout pointed, projecting, much longer than eye diameter; nostrils much closer to tip of snout than to eye, directly above end of lower jaw; canthus rostralis sharp, the angle continuous beyond nostril to tip of snout; lores slightly oblique, feebly concave; interorbital a little wider than upper eyelid; tympanum flattened above, about three-fifths diameter of eye, less than its own diameter from orbit.

Fingers with large disks, those of outer fingers greater than tympanum; ventral surface of disks completely circumscribed by groove; web reaching base of disk of fourth finger, reaching disk on outer side of third finger, reaching subarticular tubercle on inner side of third finger, base of disk on outer side of second finger, distal edge of subarticular tubercle on inner side of second finger, and same point on first finger; subarticular tubercles well-developed.

Disks of toes smaller than those of outer fingers; all toes except fourth webbed to base of disks, fourth to distal edge of distal subarticular tubercle; an oval inner but no outer metatarsal tubercle; subarticular tubercles well-developed.

Skin above smooth; a horizontal fold from eye over tympanum to just beyond shoulder; chin